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**Amendments to the Claims**

Please cancel Claims 12 and 13. The Claim Listing below will replace all prior versions of the claims in the application:

**Claim Listing**

- 1-16. (Canceled)
17. (Previously presented) An enzyme-linked immunosorbent assay kit comprising human cartilage oligomeric matrix protein prepared by the method comprising:
- a) introducing DNA encoding human cartilage oligomeric matrix protein into cells, thereby producing cells expressing human cartilage oligomeric matrix protein;
  - b) culturing the cells in a culture medium under conditions suitable for expressing the human cartilage oligomeric matrix protein, thereby producing expressed human cartilage oligomeric matrix protein; and
  - c) purifying the human cartilage oligomeric matrix protein in the presence of calcium.
18. (Canceled)
19. (Previously presented) An enzyme-linked immunosorbent assay kit comprising the human cartilage oligomeric matrix protein (hCOMP) produced by the method comprising:
- a) obtaining DNA encoding full length hCOMP;
  - b) introducing the DNA into cells, thereby producing cells expressing hCOMP;
  - c) culturing the cells in a culture medium under conditions suitable for expressing the hCOMP, thereby producing expressed hCOMP; and
  - d) purifying the hCOMP in the presence of calcium.
- 20-37. (Canceled)

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38. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel, and further comprising chondrocytes or mesenchymal stem cells.
39. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel, wherein the cartilage oligomeric matrix protein is bound to a differentiation agent.
40. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel and further comprising chondroitin sulfate proteoglycans.
41. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel, wherein the cartilage oligomeric matrix protein is human cartilage oligomeric matrix protein purified in a calcium-replete environment.
42. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the biological matrix comprises type I collagen gel or type II collagen gel, and wherein the matrix further comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers and porous polylactic acid.

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43-90. (Canceled)

91. (Previously presented) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid and type I collagen gel.